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## Screen rhytides

*the cosmetic legacy of COVID-19*

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## Screen rhytides: the cosmetic legacy of COVID-19

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Dear Professor Lotti,

COVID-19 and the resulting lockdown has brought in a new digital era in which meetings are regularly scheduled on online platforms such as Zoom or Microsoft Teams. Neologisms such as 'zoom fatigue' have entered everyday vocabulary describing the prolonged use of screens and need for online productivity.<sup>1</sup> This may lead to increased squinting and ocular straining and has resulted in increased glabellar straining and prolonged orbicularis oculi muscle contraction, causing worsening of glabellar wrinkles and crow's feet. Furthermore, exposure to blue light from electronic devices can increase the generation of reactive oxygen species leading to aging and wrinkles and can result in damage to the eyes and skin.<sup>2</sup> After months of scrutinising one's appearance through video conferencing platforms including deepening wrinkles, there may be an emerging demand for neurotoxins as individual country's lockdown restrictions are lifted. Increased straining and muscle

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contraction may reduce the length of time that botulinum toxin exerts its effects, resulting in an increased demand for more sessions of botulinum toxin with shorter intervals between each treatment. The authors are observing a sharp increase and awareness of glabellar and lateral canthal lines with patients directly referring the effects to increased “screen activity”.

Emerging reports of patients self-administering botulinum toxin with black-market at home kits demonstrates some patients’ desperation, with devastating potential adverse effects.<sup>3</sup> COVID-19 lockdown restrictions necessarily prohibited access to most aesthetic injectable treatments and as cosmetic clinics start to reopen, cosmetic dermatologists are likely to have a backlog of patients.<sup>4</sup> We suggest cosmetic practitioners should assess for and treat wrinkles and other facial changes resulting from prolonged screen activities.

## References

- (1) Richter A. Locked-down digital work. *Int J Inf Manage*. 2020:102157. doi: 10.1016/j.ijinfomgt.2020.102157.
- (2) Arjmandi N, Mortazavi G, Zarei S, Faraz M, Mortazavi SAR. Can Light Emitted from Smartphone Screens and Taking Selfies Cause Premature Aging and Wrinkles? *J Biomed Phys Eng*. 2018;8(4):447-452.

- (3) Haria S. 'Desperate' people turning to backstreet botox and face fillers to keep up appearances in lockdown. [Internet]. 2020. [cited 23 July 2020]. Available from: <https://www.telegraph.co.uk/beauty/face/inquiry-desperate-people-injecting-face-fillers-keep-appearances/>.
- (4) Arora G, Jafferany M, Arora S. Balancing aesthetic and conventional dermatology practice in the COVID-19 era. *Dermatol Ther*. 2020;19:e13620.